A CASE OF PRIMARY CARCINOMA OF BRONCHUS IN THE MEDIASTINUM.*

By H. R. OLIVER, M. D., San Francisco.

Mr. P. D., age 42. Mass. Albino. Previous health good. Family history good. No veneral history. In February, 1908, patient complained of pain in the right apex. He was somewhat weak. One week later developed a temperature of 101.6. A physician made diagnosis of pneumonia. Patient was confined to the house for two weeks; temperature was never over 102; right apex dull to percussion. Patient did not regain strength and diagnosis of tuberculosis of lungs was made. Sputum examined by myself several times, during a period of three months, failed to reveal tubercle bacilli. The sputum was of a serous nature and had a slight streak of bright blood.

Patient then went to the southern part of the state for two months, failed to gain strength and came home. While south a physician claimed to have found tubercle bacilli once. On his return I again examined sputum several times with same findings as previously stated. Rather suddenly patient became markedly dyspnoeic and could only rest in upright position. A diagnosis of cardiac failure was made. I then saw the patient for the first time and found markedly dyspnoeic and cyanotic. On examination the heart sounds and pulse were normal, the right side was bulging and the pleura contained fluid to the fourth rib. Aspiration showed a clear straw colored fluid. high in specific gravity, rich in albumin but containing few pus cells; the polymorphonuclears in excess, and no blood present. Two liters were withdrawn; patient much relieved but complained of pain between scapulae at lower angles. Percussion of chest showed right side flat, left emphysematous. After withdrawal of the fluid some breath sounds feebly heard at base of lung (probably transmitted from emphysematous left lung). He got stronger but developed an extensive edema of the right side of the face, neck and forearm. A diagnosis of mediastinal tumor was then made. This edema then extended to the left side of face and arm. The veins of both sides of chest were distended to size of lead pencils, and anastomosis with epigastrics caused these to also become swollen. There was little or no swelling of the lower limbs, no albumin or casts in the urine. This condition continued for several days, patient suffering great pain, especially in upper dorsal region. He became rapidly worse and pleura in both sides filled up with fluid, and then a remarkable change took place; the edema of the face and arms on both sides subsided to normal. Edema of lungs of inflammatory nature caused death three days later. The temperature was never over 100 during the whole period.

A post mortem was held. Heart was found to be normal in size and texture, valves normal. Both pleura filled with straw and bloody colored fluid. A large mediastinal tumor was found incorporating all the structures of the mediastinum and right lung, extending into the right apex and down the pleura to and along the diaphragm. The tumor which was sectioned was found to be a carcinoma, arising from the mucous membrane of bronchus at the bifurcation. There it was the size of a half dollar, edges elevated and center ulcerated. This extended down the bronchi on the right side and to the second bifurcation completely obliterated them. Then small masses were scattered throughout the contracted and pus-filled lung. The left side showed none, the peri-bronchial lymph glands showed metastases. The superior vena cava was surrounded and pressed on while the inferior was not interfered with. The liver was cyanotic and atrophic, the kidneys and spleen were normal but showed marked passive congestion.

Conclusions: The fact that the sputum was of a serous nature and blood streaked was most likely due to transudation and the blood due to the ulceration of the primary tumor. The pain in the back was the typical mediastinal pressure pain. But the interesting phenomena of the great edema occurring after aspiration and then disappearing, on refilling, can be explained by the fact that while the fluid floated or held up the heavy, infiltrated mass of lung and the lumen of superior vena cava remained open, and when withdrawn this mass fell downward, causing a bend in the vessels and occlusion, the edema resulting. Just before death, when the fluid returned, the lung was again floated or pressed upward and the vessels regained their continuity and circulation was reestablished and the edema disappeared. The histologic examination showed the carcinoma to have arisen from the bronchial epithelium.

* Reported at Cooper College Science Club.

TWO CASE REPORTS BY M. L. EMERSON, M. D., MADE TO THE ALAMEDA COUNTY MEDICAL ASSOCIATION.

At the last meeting I presented a patient on whom I had operated for a pseudo-pancreatic cyst or a cyst of the omental bursa, removing from this lesser peritoneal cavity two quarts of dark, blood-stained fluid from a very much emaciated patient, who at some time probably suffered from a trauma of the pancreas.

Colicy pain referred to the left hypochondrium and left shoulder, nausea, vomiting, steady enlargement of the abdomen and emaciation, were his chief symptoms. This tumor reached the abdominal wall between the stomach and colon in the left hypochondrium.

This evening I present to you a specimen of an acute hemorrhagic pancreas secured post mortem to-day, from a patient on whom I operated four days previously. I have purposely kept it on ice since its removal this afternoon, that you might observe the pathognomonic fat necrosis which has occurred in the fat of the omentum, falciform ligament, mesentery and throughout the substance of the pancreas itself.

The abdomen in this case contained considerable blood-stained fluid, the pancreatic area looked like a carcinomatous mass within the intestines, the fat necrosis was everywhere demonstrable—breaking through the gastrocolic omentum the nature of the lesion could be plainly recognized.

No stones or any cause of obstruction could be demonstrated in the pancreatic ducts. The hemorrhage, you will notice, is in the head of the gland, which part is somewhat enlarged.

RAILWAY SURGEONS

CRUSADE AGAINST THE ANOPHELE MOSQUITO.*

By T. B. REARDAN, M. D., Oroville.

When Laveran, in 1882, discovered the parasites in the blood of those ill with malarial fevers, an opening wedge was driven, which has finally made clear the way for the control, and one might say, the elimination of such fevers in any given locality. Patrick Manson found the mosquito to be the host of the parasite, and Sir Ronald Ross that it inoculated the human through its bite.

The first scientific demonstration of protection was carried out in the swamps of Rome, where in mosquito-proof houses in a place where hardly any one was ever known to escape infection, the protected laborers were able to work and remain free of malarial fevers. Patrick Manson, to prove the findings, had an infected Anophele mosquito carried

* Read at the Eighth Annual Meeting of the Pacific Association of Railway Surgeons, San Francisco, August, 1910.